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EXAMINER

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/600,162
Filing Date: June 20, 2003
Appellant(s): MPR ET AL.

Mirut Dalal
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 2/3/2010 appealing from the Office action mailed 8/20/2008.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims 1-16 are cancelled without prejudice.

Claims 17-22 were rejected under 35 U.S.C. 102(e) as being anticipated by U.S.

Patent Publication 2006/0026637 to Gatto ("Gatto").

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being

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maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

1-16. (Cancelled).

17. A system for providing a plurality of videos for simultaneous display, said system comprising:

a video decoder for decompressing a plurality of compressed video streams, thereby resulting in a plurality of decompressed video streams, wherein each of said decompressed video streams comprises a plurality of pictures; and

a register for indicating a past prediction picture, and a future prediction picture for each of the plurality of compressed video streams.

18. The system of claim 17, wherein the video decoder motion compensates motion estimated pictures in each of the plurality of compressed video streams using at least the past prediction pictures indicated by said register for each of the plurality of compressed video streams.

19. The system of claim 17, wherein said register indicates a picture for display for each of the plurality of compressed video streams, and further comprising:

a display engine for providing an output, said output concatenating the pictures for display for each of the plurality of compressed video streams indicated by the register.

20. The system of claim 17, wherein a single video decoder decompresses the plurality of compressed video streams, thereby resulting in the plurality of

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decompressed video streams, wherein each of said decompressed video streams comprises the plurality of pictures.

21. The system of claim 19, wherein the display engine examines the register, selects the pictures indicated by the register for display, and concatenates the pictures indicated for display by the register.

22. The system of claim 21, wherein the display engine requests the pictures indicated by the register for display, from a frame buffer.

(8) Evidence Relied Upon

2006/0026637

GATTO et al

2-2006

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 17-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Gatto et al.

(10) Response to Argument

With regard to the applicants' argument that: "VIA. THE FINDING THAT GATTO TEACHES "A VIDEO DECODER FOR DECOMPRESSING A PLURALITY OF COMPRESSED VIDEO STREAMS" IN THE SINGULAR CONTEXT IS IN ERROR Gatto is directed to "Interactive Television Devices and Systems" The "interactive TV device is configured to receive and process multiple broadband input streams simultaneously. The device includes functionality to perform as a Web browser, HF, cable and satellite TV receiver, a digital PVR, an interactive TV set-top box, an advanced central processing unit, and a video conferencing device" Abstract.

Gatto, Fig. 8 shows a screen divided into quarter screen segments 802a, 802b, 802c, 802d, each of which can show "a combination of differently formatted video streams from a variety of providers." Gatto 0055.

However, even if, arguendo, each of the quarter segments 802a-d are deemed to be decompressed video streams, Gatto does not teach "a video decoder for decompressing a plurality of compressed video streams, thereby resulting in a plurality of decompressed video streams" with emphasis on the singular context.

In contrast, Appellants respectfully submit that Gatto teaches that each stream is decompressed by a different video decoder. Appellants call attention to Gatto 0040 that teaches that "graphics engine 192 may include ... one or more (MPEGx for example) video decoders 154" It is noted that Figure 8 includes "one or more quarter screen segments" that can display "any combination of TV channels through one or more of the four independent television tuners" Appellant respectfully submits that given the optional language of Gatto, one skilled in the art would understand displaying one or more video

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streams in a device with one or more video decoders to mean that if displaying two video streams, two video decoders are present, if displaying three video streams, three video decoders are present, etc.

Examiner has argued that "Gatto allows for the singular decoder implementation for processing multiple streams by itself particular since the reference teaches storage for the input streams (Gatto: paragraph 0039, lines 10-20), and since a ~watchdog' processor would monitor [to] ensure that enough of teach stream was throughput through the singular processor (Gatto: paragraph 0041, lines 8-14; video signal flow)." Gatto 0039 teaches allowance of various memory devices, including 100 Gbytes of storage space, enabling between about 100 and 300 hours of video recording. Assignee respectfully submits that the foregoing is only indicative of the amount of content that can be stored in Gatto, but is not indicative of the number of video decoders. There is no indication that the amount of memory required to store given numbers of video streams is dependent on the number of decoders that decompress them.

Regarding the "watchdog processor", Gatto 0041 makes no such statement that it "monitor[s to] ensure that enough of teach stream was throughput through the singular processor". To state that it "would" is simply speculation and conjecture. Appellant reiterates that "A claim is anticipated only if each and every element as set forth in the claimed is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 631 Fed. Cir. 1987).

Examiner has indicated that Gatto teaches "an interactive television devices and systems comprising the same system for providing a plurality of videos simultaneous display, said system comprising: a video decoder for decompressing a plurality of compressed video streams, thereby resulting in a plurality of decompressed video streams, wherein each of said decompressed video streams comprises a plurality of pictures (paragraph 0007 shows only a video decoder for accepting a plurality of input stream)" Final Office Action, at 4.

Appellant respectfully submits that the foregoing is in error. Gatto, Paragraph 0007 describes "a video signal decoder". Even if the "video signal decoder" is "accepting a plurality of input stream[s]", Gatto does not teach that a "video signal decoder" for "decompressing a plurality of compressed video streams" In fact Gatto, 0007 does not even teach that the input streams are compressed. Note that Gatto 0007, Lines 10-11 teaches "the analog bus including a video signal decoder coupled to the input and a video signal encoder coupled to the output".

It is well known in the art that analog video signals are not compressed video signals. Moreover, Gatto does not teach that analog signals are compressed. Assignee calls attention to Figure 1, and respectfully submits that "video signal decoder" corresponds to "HDTV/PAL/NTSC Decoder 130", as opposed to "MPEGx Decoder 154" Gatto,"(pages 5-8).

The examiner respectfully disagrees.

The examiner wants to point out that paragraph 0007 also discloses that "the output being configured to selectively output a plurality of output streams" (lines 6-7),

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and paragraph 0008, lines 1-6, discloses that "the input may be configured to accept an input stream selected from an analog source, a digital video source, an IP connection, a video stream from a data carrier, a video stream from a video camera, an IR connection, a wireless connection, a Universal Serial Bus (USB)", and paragraph 0009, lines 1-6, further emphasizes that the first graphic engine being coupled to the digital bus and to the analog bus may include a hardware video encoder and a hardware video decoder, and that the video decoder may conform to a Motion Pictures Expert Group standard. It is clear that Gatto et al needs one or more decoders to decode a plurality of output streams, and there is absolutely no indication that a separate decoder must be used to decode a different MPEG encoded video stream, or in other words, there must be a one-on-one relationship between MPEG decoder and MPEG decoded video stream, one can not preclude the fact that a decoder can be used to decode more than one MPEG encoded video streams, especially, when a plurality of MPEG video streams are multiplexed and encoded (figure 1, el. 126, 130). One would have to assume that if the only way to decode a plurality of multiplexed, encoded MPEG video streams is to have a de-multiplexer to de-multiplex the plurality of multiplexed, encoded MPEG video streams, and to have each decoder for each encoded MPEG video stream, Gatto et al would clearly indicate as such.

The Examiner also maintains that Gatto allows for the singular decoder implementation for processing multiple streams by itself particularly since the reference teaches of ample storage for the input streams (Gatto: paragraph [0039], lines 10-20), and since a "watchdog" processor would monitor ensure that enough of each stream

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was throughput through the singular processor (Gatto: paragraph [0041], lines 8-14: control video signal flow). Accordingly, the Examiner maintains that Gatto reads upon the limitation since it anticipates the processing of multiple input streams of video data by a single video decoder, as in the claims.

With regard to the applicants' argument that: "VII. B. THE FINDING THAT GATTO TEACHES "A REGISTER FOR INDICATING A PAST PREDICTION PICTURE, AND A FUTURE PREDICTION PICTURE FOR EACH OF THE PLURALITY OF COMPRESSED VIDEO STREAMS" IS IN ERROR

Examiner has indicated that "Gatto discloses the use of an events manager slave module which manages all ... '...current and future...' events, and further discloses an events database (Gatto: paragraph [0142], lines 1-10). When those events are video based, particularly, compressed video based (Gatto: paragraph [0040], lines 10-20), a prediction index is generated for that video events database. Accordingly, the Examiner maintains that the limitation is met." Final Office Action at 3.

Assignee respectfully traverses the rejection and submits that "indicating a past prediction picture, and a future prediction picture for each of the plurality of compressed video streams" does not read on "current and future events". Additionally, Gatto, paragraph 0040 states that "decompression of video streams into and from the MPEGx standard is carried out in hardware, thereby enabling a more efficient use of processor resources and encoding and decoding functions that are independent of the current processing load on the internal processor 146 of the circuitry 100."

Accordingly, Assignee respectfully submits that "a register for indicating a past prediction picture, and a future prediction picture for each of the plurality of compressed video streams" does not read on the "events database (Gatto: paragraph [0142], lines 1-10)."

Examiner states on page 4 of the final rejection that Gatto teaches "a register for indicating a past prediction picture, and a future prediction picture for each of the plurality of compressed video streams (paragraph 0009 shows MPEG which comprises I, P, and B frames and since MPEG involves predictive coding, registers or frame memories must be reserved at the decoder so one can predict pictures in the GOP based on those stored reference frames)"

Examiner provided the same basis in the previous office action.

The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. In re Rijckaert, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); In re Oelrich, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981). "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.' " In re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations

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omitted). "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original). See also MPEP 2112.

Examiner has indicated that "since MPEG involves predictive coding, registers or frame memories must be reserved at the decoder so one can predict pictures in the GOP based on those stored reference frames" As an initial matter, if "registers or frame memories must be reserved", then "registers" are not necessarily present.

Moreover, that registers and/or frame memories "must be reserved at the decoder so one can predict pictures in the GOP based on those stored reference frames" is not a teaching of "a register for indicating a past prediction picture, and a future prediction picture for each of the plurality of compressed video streams" (pages 9-10).

The examiner respectfully disagrees.

The examiner remains convince that the limitation of "a register for indicating a past prediction picture, and a future prediction picture for each of the plurality of compressed video streams" is met by Gatto's discussion the home application to show the existence of said registers. The Examiner notes that Gatto discloses the use of an events manager slave module which manages all "...current and future..." events, and further discloses an events database (Gatto: paragraph [0142], lines 1-10). When those

events are video based, particularly, compressed video based (Gatto: paragraph [0040], lines 10-20), a prediction index is generated for that video events database.

With regard to the applicants' argument that: "VIII Argument – Claim 18: Claim 18 stands rejected under 35 U.S.C. 102(e) as anticipated by Gatto. Claim 18 recites:

The system of claim 17, wherein the video decoder motion compensates motion estimated pictures in each of the plurality of compressed video streams using at least the past prediction pictures indicated by said register for each of the plurality of compressed video streams.

Examiner has indicated that the foregoing is "inherently included in the MPEG standards". Assignee respectfully submits that "motion compensates ... using at least the past prediction pictures indicated by said register for each of the plurality of compressed video streams", is not required by the MPEG standards. The MPEG standards make no such requirement of a "register" to "indicate".

Moreover, if the claimed register was required by the MPEG standards, Appellant respectfully requests citation to the particular section that requires the register." (page 11, line 13 – page 12, line 3).

The examiner respectfully disagrees.

It is respectfully submitted that "a register" is interpreted as "a mechanical device by which certain data are automatically recorded.", and therefore, a memory to store past reference frame and/or future reference frame for predictive decoding as well known in MPEG would meet the limitation as claimed.

With regard to the applicants' argument that: "IX. Argument Claims 19, 21 and 22: Examiner has indicated that Gatto teaches "a display engine for providing an output, said output concatenating the pictures for display for each of the plurality of compressed video streams indicated by the register as specified in claim 19; the display engine examines the register, selects the pictures indicated by the register for display, and concatenates the picture indicated for display by the register; and the display engine requests the pictures indicated by the register for display, from the frame buffer as specified in claims 21-22 (fig. 8 and paragraphs 0036, 0040, 0142-0145: the events manager slave module 1208 may access an events database 1222 (or some other structure configured to store events information), which may include an entry for each current and future event carried out or to be carried out by the home application 1200 running on the present interactive TV device. The events database 1222 may, according to an embodiment of the present invention, store an event ID, which is a chronologically-assigned number for each event, an indication of the type of event (display of a channel, recording of a channel, etc.), and [0145] h. A video editor slave module 1214, which enables the user to edit a stored video stream using a full function video editor.) as specified in claims 19 and 20-22".

Assignee respectfully submits that none of "fig. 8 and paragraphs 0036, 0040, 0142-0145: the events manager slave module 1208", "events database 1222" are an express teaching of "concatenating the pictures for display for each of the plurality of compressed video streams indicated by the register" (claim 19), "selects the pictures indicated by the register for display, and concatenates the pictures indicated for display

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by the register" (claim 21) or the claimed "wherein the display engine requests the pictures indicated by the register for display, from a frame buffer."(page 12-14).

The examiner respectfully disagrees.

The examiner interprets "concatenating" as "linked together, as a chain", and that in MPEG predictive coding protocol, the order of pictures to be displayed is different than the order of picture sent from the encoder (Office Action 11/15/2007, page 4, lines 12-15), because the event database, which may include an entry for each current and future event carried out or to be carried out by the home application 1200 running on the present interactive TV device, must be arranged for the temporal displaying of pictures in the order which is different than the order sent by the encoder; and therefore, the limitations as claimed are met.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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